

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants : Jurgen CLEMENS, Dr. Wolf MENDE and Dr. Norbert SCHULTZE
Serial No. : Not Yet Known
Filed : Herewith
For : METHOD FOR AUTOMATICALLY DESIGNING CELLULAR MOBILE RADIOTELEPHONE NETWORKS

Assistant Commissioner of Patents
BOX PCT
Washington, D.C. 20231

Sir:

PRELIMINARY AMENDMENT

Please delete the claims, and substitute new claims 1 through 6, as follows:

-- 1. A method for automatically designing cellular mobile radio telephone networks, wherein, from existing planning data of implemented, planned or abstract cellular mobile radio telephone networks or subnetworks and the space-related data of their planning areas and the space-related data of a new planning area, a design of the cellular mobile radio telephone network or subnetwork for the new planning area is automatically generated by processing the relations between the space-related reference and planning data and application of coordinate and angle transformations to the site coordinates of the base stations and main beam directions of the antennas of the base stations of the reference data.

2. A method according to claim 1, wherein the quality of the network design is assessed by quantifying the relations between space-related reference and planning data.

3. A method according to claim 1, wherein the space-related planning data are acquired, stored, tested and processed.

4. A method according to claim 1, wherein the space-related planning data are represented as one or multi-dimensional features and/or parameters and are kept stored in a database.

5. A method according to claim 1, wherein the space-related and network-related reference data are kept stored in a database and are represented as one or multi-dimensional features and/or parameters.

6. A method according to claim 1, wherein, without necessary human intervention, for a mobile radio telephone network or subnetwork (N1) to be planned on a geographic area (1) a real or abstract mobile radio telephone network or subnetwork (N2) on a real or abstract geographic area (6) is changed in the space-related parameters, site coordinates and antenna main beam directions and on the geographic area (1) is substituted in the subnetwork (N1) to be planned by coordinate transformation of the geographic longitude, latitude and rotation with respect to the zero meridian at the precise instant when the features of the space-related data of the geographic areas (1) and (6) are equal or are said to be equal in accordance with a particular criterion. --